



Name _____

Practice: For use after Lesson 7.5, Algebra 2 with Trigonomet

Algebra 2
Unit #6
WS #9**Complex Rational Expressions**

Simplify.

1. $\frac{\frac{x}{9}}{y}$ _____

3. $\frac{\frac{7}{x} + \frac{2}{y}}{\frac{-6}{x} + \frac{3}{y}}$ _____

5. $\frac{\frac{7}{x+1} + 3}{2 + \frac{5}{x+1}}$ _____

7. $\frac{\frac{5}{4y-4}}{\frac{3y}{y^2-1}}$ _____

9. $\frac{\frac{2x}{x^2+6x+5}}{\frac{6}{x+5} + \frac{1}{x+1}}$ _____

2. $\frac{\frac{-5}{4}}{\frac{x}{x} + y}$ _____

4. $\frac{\frac{4}{xy} - \frac{1}{y}}{\frac{2}{x} + \frac{3}{y}}$ _____

6. $\frac{\frac{6}{y+7}}{\frac{8y}{y^2-49}}$ _____

8. $\frac{\frac{3x}{x^2-25} + \frac{2}{x+5}}{\frac{4}{x+5} + \frac{1}{x-5}}$ _____

10. $\frac{x+6 + \frac{5}{x+3}}{x-4 + \frac{2}{2x+6}}$ _____

Applications

- 11.
- Geometry**
- The width of a rectangle is
- $1 - \frac{x}{x-2}$
- cm, and the area is
- $\frac{x}{x+2} - 1$
- cm
- ²
- . Find the length of the rectangle. _____

- 12.
- Ratio**
- In a class there are
- $\frac{10}{x-3}$
- girls and
- $\frac{5}{x-3}$
- boys. Find the ratio of girls to boys in the class. _____

MIXED PRACTICE

Simplify.

13. $\frac{\frac{6}{5}}{\frac{5}{x} + y}$ _____

15. $\frac{x^2 - 9x - 36}{2x^2 - 18}$ _____

14. $\frac{5x-10}{6-3x}$ _____

16. $\frac{\frac{11}{3x+12}}{\frac{5x}{x^2-16}}$ _____